EXHIBIT 5

Report for RID 25865 Last Modified: [08-Aug-2008 11:49:53] -- Shot Number: 52064 at 06-Aug-2008 09:49:17

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H						
25865	GCD- 1	<u>QXI-</u> 1	WRFM- 3	WRFM- 4	<u>TAD-</u> 1	NIS- LANL	FABS-	<u>CPS-</u> 2	II I	XRPHC- H12	4	XRPHC- H13	KBMICRO-3	<u>CPS-</u> 1	ACTR- Copper	HYNBT-	HYNTD- 1	NTD- 1	F	SCC- G 12M NTOF H

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General / 25865

Shot Scope	OMEGA Only	OMEGA Only							
Campaign	LANL-HED	Planned Date	06-Aug-2008						
Series Name	DTRat	Shot Series	1						
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14						
PI List	Horsfield/Colin//	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt						
ri List	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective							
Special Instructions									
Abort Criteria	Abort on anything								

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Driver / 25865

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 25865

ſ		60 bea	m(s) are co	onfigured, 60 beam(s) §	go to target.				
Ī	Beams Group Name	Energy	Pointing	Focusing	Beam	DPP	DPR	Termination	Report

					Delay (ns)				Group
11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 25865

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-17		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 25865

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	Tertiary Activation Diagnostic - 1	Duffy, T.
TIM 6	Ride Along	Neutron Imaging System - LANL	Wilde, C.

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Fixed Diagnostics / 25865

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2) Burke,	
P4H	Primary	Charged Particle Spectrometer (1) Burke, M.	
B25	Secondary	Full Aperture Backscatter System (1) Bahr, R.	
H12F	Secondary	Gated Microscope XR Imager (1) Marshall, F	
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3)	Marshall, F.
H12C	Secondary	XR Pinhole Camera (H12) Marshall, F	
H13C	Secondary	XR Pinhole Camera (H13) Marshall, I	

Neutron Diagnostics / 25865

Primary Radiation	DT	
Expected Yield	5.00E+12	
Priority	Description	Contact
Primary	Activation Retractor (Copper)	Glebov, V.
Secondary	High Yield Neutron Bang-Time Detector (1)	
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.
Primary	Neutron Temporal Diagnostic (1)	
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.

TIM 1 - GCD 1 / 25865 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	
Foil Thickness	

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Comments

FIXED H12F - GMXI 1 / 25865

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	0
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 25865 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tee

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TIM 5 - TAD 1 / 25865 Operating Procedures

Des	cription	Tertiary Activation Diagnostic

Package Type	Disk
Pay Load	
Distance to TCC	40 cm
Comments	
Steering	tcc

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NEUTRON - NTD 1 / 25865 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	3 cm
Trigger Delay	4999841.1 ns
Fiducial Delay Box	NTD-4

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FIXED P4H - CPS 1 / 25865 Operating Procedures

Description	Charged Particle Spectrometer	
Slit Width	1 mm	
Comments	CPS1&2 for DD-p (YDD ~8e10)	

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FIXED H1 - CPS 2 / 25865 Operating Procedures

Description Charged Particle Spectrometer	
Slit Width	2 mm
Comments	CPS1&2 for DD-p (YDD ~8e10)

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TIM 3 - WRFM 3 / 25865 Operating Procedures

Description	Wedge Range Filter Module	
Distance to TCC	30.0 cm	
Rotation		

Steering	tcc	
Comments	For the first time, measure secondary protons in a DT neutron background. (YD3He ~7e7)	
Filter Pack	WRF	
Windows Filter W1 WRF W2 W3 W4	Blast Shield	

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TIM 4 - WRFM 4 / 25865 Operating Procedures

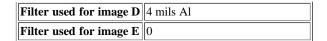
Description	Wedge Range Filter Module	
Distance to TCC	30.0 cm	
Rotation		
Steering	tcc	
Comments	For the first time, measure secondary protons in a DT neutron background. (YD3He ~7e7)	
Filter Pack	WRF	
Windows Filter W1 WRF W2 W3 W4	Blast Shield	

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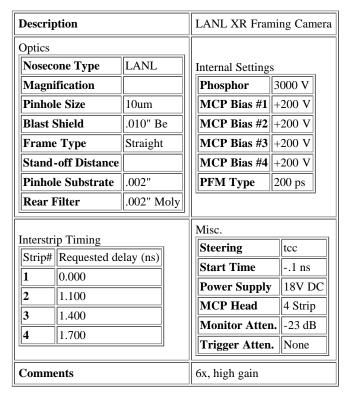
FIXED H13F - KBMICRO 3 / 25865

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al

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TIM 2 - QXI 1 / 25865



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FIXED H12C - XRPHC H12 / 25865 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 25865 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Cu (PI Supplied)

FIXED B25 - FABS 1 / 25865

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26170 Last Modified: [06-Aug-2008 14:01:41] -- Planned Shot Date: 06-Aug-2008

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H							
26170	GCD- 1	<u>QXI-</u> 1	WRFM-3	WRFM- 4	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	GMXI- 1	XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	HYNBT-	HYNTD- 1	NTD- 1	C 3M	D E	E 1.7M	SCC- F 12M NTOF L

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General / 26170

Shot Scope	OMEGA Only	OMEGA Only							
Campaign	LANL-HED	Planned Date	06-Aug-2008						
Series Name	DTRat	Shot Series	13						
	Herrmann/Hans/505-665-5075/	Yield	Type 7a: High Yield, predicted* to exceed 1e10, but less than 3e11						
PI List	Horsfield/Colin//	Primary Objective	Attempt to measure Reaction History using D/3He gammas						
F1 List	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective							
Special Instructions									
Abort Criteria	bort Criteria Abort on anything								

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Driver / 26170

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG1018		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26170

	60 beam(s) are configured, 60 beam(s) go to target.									
	Beams	Group Name	Energy	Pointing	Focusing	Beam Delay (ns)	DPP	DPR	Termination	Report Group
П										

| 11-60 | Drive | 500 J/Beam (UV) | tcc | 0 mm (lens position) | 0 | SG4 | Yes | Target | A

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Target / 26170

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-2		
Туре	SiGDP capsule - 6.7 atm D2/13.4 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	D2/3He		
DT Target			
Positioner			
Hazards			
Beryllium			
Uranium			
Instructions	Record 3He depress time		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26170

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	
TIM 6	Ride Along	Neutron Imaging System - LANL	Wilde, C.

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Fixed Diagnostics / 26170

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1) Bahr,	
H12F	Secondary	Gated Microscope XR Imager (1) Marsha	
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3)	Marshall, F.
H12C	Secondary	XR Pinhole Camera (H12)	Marshall, F.
H13C	Secondary	XR Pinhole Camera (H13)	Marshall, F.

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Neutron Diagnostics / 26170

Primary Radiation	DD					
Expected Yield	1.00E+11					
Priority	Description	Contact				
Secondary	High Yield Neutron Bang-Time Detector (1)					
Secondary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.				
Primary	Neutron Temporal Diagnostic (1)					
Primary	Scintillator Counter (E 1.7M NTOF)	Glebov, V.				
Primary	Scintillator Counter (D 5.4M NTOF)	Glebov, V.				
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.				
Secondary	Scintillator Counter (C 3M NTOF)	Glebov, V.				

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TIM 1 - GCD 1 / 26170 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	
Foil Thickness	
Comments	

FIXED H12F - GMXI 1 / 26170

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26170 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26170 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	3 cm

Trigger Delay 4999836 ns
Fiducial Delay Box NTD-7

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FIXED P4H - CPS 1 / 26170 Operating Procedures

Description	ption Charged Particle Spectrometer								
Slit Width 1 mm									
Comments	Simultaneous measurement of DD (1e11) & D3He (2e10) protons								

FIXED H1 - CPS 2 / 26170 Operating Procedures

Description	Description Charged Particle Spectrometer								
Slit Width	h 1 mm								
Comments	Simultaneous measurement of DD (1e11) & D3He (2e10) protons								

TIM 3 - WRFM 3 / 26170 Operating Procedures

	1				
Description	Wedge Range Filter Module				
Distance to TCC	175 cm				
Rotation					
Steering	tcc				
Comments	Expected D2/3He-p Yield ~ 2e10				
Filter Pack	WRF				
Windows					
Filter	Blast Shield				
W1 WRF					
W2					
W3					
W4					

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TIM 4 - WRFM 4 / 26170 Operating Procedures

Description	Wedge Range Filter Module
-------------	---------------------------

175 cm

tcc

WRF

Filter Blast Shield

Distance

to TCC
Rotation
Steering

Comments

Filter Pack
Windows

SRF Reports

| Filter
| W1 | WRF
| W2 |
| W3 |
| W4 |

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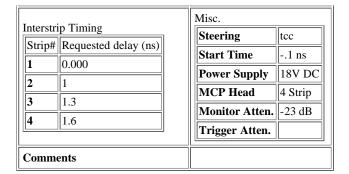
FIXED H13F - KBMICRO 3 / 26170

Expected D2/3He-p Yield ~ 2e10

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26170

Description		LANL XR Framing Camera					
Optics							
Nosecone Type	LANL	Internal Settings					
Magnification	6X-16	Phosphor	3000 V				
Pinhole Size	10um	MCP Bias #1	+200 V				
Blast Shield	.010" Be	MCP Bias #2	+200 V				
Frame Type	Straight	MCP Bias #3	+200 V				
Stand-off Distance		MCP Bias #4	+200 V				
Pinhole Substrate	.002"	PFM Type	200 ps				
Rear Filter	.002" Moly						



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FIXED H12C - XRPHC H12 / 26170 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26170 Operating Procedures

Description	XR Pinhole Camera					
Total Fixed Filtration	0.006" Be					
Pinhole to image	648 mm					
Pinhole diameter	10 um					
Pinhole to target	162.5 mm					
Detector	CID					
Magnification	4.0					
Added Filtration	.001" Cu (PI Supplied)					

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TIM 5 - DD-RIC 1 / 26170 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	40 cm

Bias 1500 Volts

Comment tcc

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FIXED B25 - FABS 1 / 26170

Description	Full Aperture Backscatter System					
Streak Camera	Yes					
Calorimeters	SRS25, SBS25					
12" Calorimeters (for calibration)	No					

Report for RID 26198 Last Modified: [08-Aug-2008 11:48:17] -- Shot Number: 52065 at 06-Aug-2008 11:23:57

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H						
26198	GCD- 1	QXI- 1	WRFM- 3	WRFM- 4	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	1	XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	ACTR- Copper	HYNBT-	HYNTD-	NTD- 1	F 12M NTOF	SCC- G 12M NTOF H

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General / 26198

Shot Scope	OMEGA Only								
Campaign	LANL-HED	Planned Date	06-Aug-2008						
Series Name	DTRat	Shot Series	2						
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14						
DI I ist	Horsfield/Colin// Frenje/Johan/(617)452-4941/	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt						
PI List	Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective							
Special Instructions									
Abort Criteria	Abort on anything								

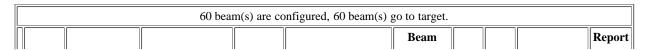
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Driver / 26198

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26198



	Beams	Group Name	Energy	Pointing	Focusing	Delay (ns)	DPP	DPR	Termination	Group
$\ \ $	11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26198

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-19		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	r 1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm :			
Cryogenic Target	rogenic Target No		
MCTC			

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TIM / 26198

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	

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TIM 6 Ride Along Neutron Imaging System - LANL Wilde, C.

Fixed Diagnostics / 26198

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1)	Bahr, R.
H12F	Secondary	Gated Microscope XR Imager (1)	Marshall, F.
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3) Marshall, I	
H12C	Secondary	XR Pinhole Camera (H12) Marshall, F	
H13C	Secondary	XR Pinhole Camera (H13)	Marshall, F.

Neutron Diagnostics / 26198

Primary Radiation	DT		
Expected Yield	5.00E+12		
Priority	Description	Contact	
Primary	Activation Retractor (Copper)	Glebov, V.	
Secondary	High Yield Neutron Bang-Time Detector (1)		
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.	
Primary	Neutron Temporal Diagnostic (1)		
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.	
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.	

TIM 1 - GCD 1 / 26198 Operating Procedures

Description	Gas Cherenkov Detector	
Gas Fill	CO2	
Gas Pressure	100 psi	
Secondary Gamma Foil	No	
Foil Material		

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Foil Thickness	
Comments	

FIXED H12F - GMXI 1 / 26198

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+1mil Al
Filter used for image B	1mil Be+2mil Al
Filter used for image C	1mil Be+3 mil Al
Filter used for image D	1mil Be+4 mil Al

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TIM 6 - NIS LANL / 26198 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26198 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	5 cm
Trigger Delay	4999841.5 ns
Fiducial Delay Box	NTD-4

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FIXED P4H - CPS 1 / 26198 Operating Procedures

Description	Charged Particle Spectrometer	
Slit Width	1 mm	
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~5e10)	

FIXED H1 - CPS 2 / 26198 Operating Procedures

Description	Charged Particle Spectrometer
Slit Width	2 mm
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~5e10)

TIM 3 - WRFM 3 / 26198 Operating Procedures

Description	Wedge Range Filter Module				
Distance to TCC	75.0 cm				
Rotation					
Steering	tec				
Comments	Primary D3He protons (YD3He ~1e9)				
Filter Pack	WRF				
Windows					
Filter	Blast Shield				
W1 WRF					
W2					

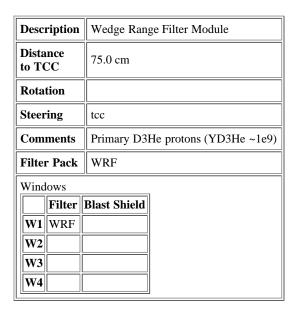
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TIM 4 - WRFM 4 / 26198 Operating Procedures



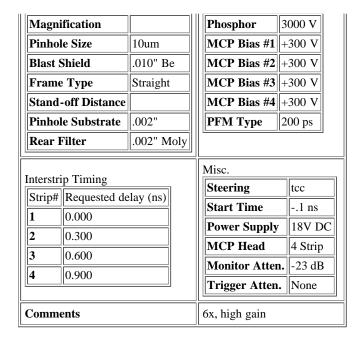
FIXED H13F - KBMICRO 3 / 26198

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26198

Description		LANL XR Framing Camera
Optics		
Nosecone Type	LANL	Internal Settings

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FIXED H12C - XRPHC H12 / 26198 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26198 Operating Procedures

Description	XR Pinhole Camera				
Total Fixed Filtration	0.006" Be				
Pinhole to image	648 mm				
Pinhole diameter	10 um				
Pinhole to target	162.5 mm				

 Detector
 CID

 Magnification
 4.0

 Added Filtration
 .001" Cu (PI Supplied)

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TIM 5 - DD-RIC 1 / 26198 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	80 cm
Bias	1500 Volts
Comment	
Steering	tcc

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FIXED B25 - FABS 1 / 26198

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26199 Last Modified: [08-Aug-2008 12:03:38] -- Shot Number: 52066 at 06-Aug-2008 12:34:14

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H						
26199	GCD- 1	QXI- 1	WRFM- 3	WRFM- 4	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	1	XRPHC- H13	KBMICRO-3	<u>CPS-</u> 1	ACTR- Copper	HYNBT-	HYNTD-	NTD- 1	F 12M NTOF	SCC- G 12M NTOF H

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General / 26199

Shot Scope	OMEGA Only								
Campaign	LANL-HED	Planned Date	06-Aug-2008						
Series Name	DTRat	Shot Series	3						
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14						
PI List	Horsfield/Colin//	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt						
PI List	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective							
Special Instructions									
Abort Criteria	Abort on anything								

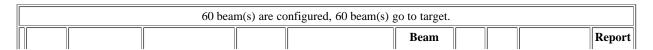
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Driver / 26199

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26199



	Beams	Group Name	Energy	Pointing	Focusing	Delay (ns)	DPP	DPR	Termination	Group
$\ \ $	11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26199

	Target 1	Target 2	Target 3
Target ID IDC LANL 08-4 DTRAT-08A-22			
Туре	SiGDP capsule - 0 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	thm :		
Cryogenic Target	No		
MCTC			

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TIM / 26199

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along CVD Diamond Detector - 1		

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TIM 6 Ride Along Neutron Imaging System - LANL Wilde, C.

Fixed Diagnostics / 26199

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1)	Bahr, R.
H12F	Secondary	Gated Microscope XR Imager (1)	Marshall, F.
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3)	Marshall, F.
H12C	Secondary	XR Pinhole Camera (H12) Marshall, I	
H13C	Secondary	XR Pinhole Camera (H13)	Marshall, F.

Neutron Diagnostics / 26199

Primary Radiation	DT	
Expected Yield	5.00E+12	
Priority	Description Contact	
Primary	Activation Retractor (Copper)	Glebov, V.
Secondary	High Yield Neutron Bang-Time Detector (1)	
Primary	High Yield Neutron Temporal Diagnostic (1) Glebo	
Primary Neutron Temporal Diagnostic (1)		
Primary Scintillator Counter (F 12M NTOF L) Gleb		Glebov, V.
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.

TIM 1 - GCD 1 / 26199 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	

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Foil Thickness	
Comments	

FIXED H12F - GMXI 1 / 26199

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+1mil Al
Filter used for image B	1mil Be+2mil Al
Filter used for image C	1mil Be+3 mil Al
Filter used for image D	1mil Be+4 mil Al

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TIM 6 - NIS LANL / 26199 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26199 Operating Procedures

Ir Ir

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	10 cm
Trigger Delay	4999842.7 ns
Fiducial Delay Box	NTD-6

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FIXED P4H - CPS 1 / 26199 Operating Procedures

Description Charged Particle Spectrometer	
Slit Width 1 mm	
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~8e9)

FIXED H1 - CPS 2 / 26199 Operating Procedures

Description Charged Particle Spectrometer	
Slit Width 2 mm	
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~8e9)

TIM 3 - WRFM 3 / 26199 Operating Procedures

Description		Wedge Range Filter Module
Distance to TCC		75.0 cm
Rota	tion	
Steer	ing	tcc
Comments		Primary D3He protons (YD3He ~1e9)
Filter Pack		WRF
Windows		
	Filter	Blast Shield
W1	WRF	
W2		

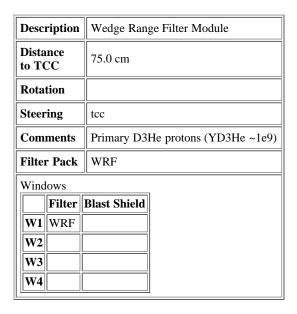
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TIM 4 - WRFM 4 / 26199 Operating Procedures



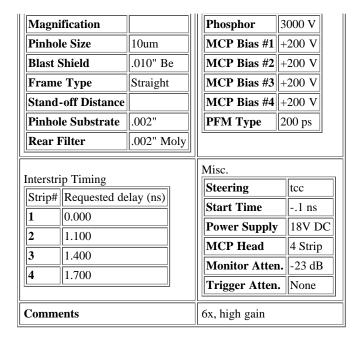
FIXED H13F - KBMICRO 3 / 26199

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26199

Description		LANL XR Framing Camera
Optics		
Nosecone Type	LANL	Internal Settings

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FIXED H12C - XRPHC H12 / 26199 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26199 Operating Procedures

Description	XR Pinhole Camera				
Total Fixed Filtration	0.006" Be				
Pinhole to image	648 mm				
Pinhole diameter	10 um				
Pinhole to target	162.5 mm				

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Detector	CID
Magnification	4.0
Added Filtration	.001" Cu (PI Supplied)

TIM 5 - DD-RIC 1 / 26199 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	40 cm
Bias	1500 Volts
Comment	
Steering	tcc

FIXED B25 - FABS 1 / 26199

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26200 Last Modified: [08-Aug-2008 12:04:30] -- Shot Number: 52067 at 06-Aug-2008 14:11:34

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H					
26200	GCD- 1	QXI- 1	WRFM- 3	WRFM- 4	<u>DD-</u> <u>RIC-</u> <u>1</u>	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	1	XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	ACTR- Copper	HYNBT-	HYNTD-	F 12M NTOF	SCC- G 12M NTOF H

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General / 26200

Shot Scope	OMEGA Only		
Campaign	LANL-HED	Planned Date	06-Aug-2008
Series Name	DTRat	Shot Series	4
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14
PI List	Horsfield/Colin// Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt
PI List		Secondary Objective	
Special Instructions			
Abort Criteria	Abort on anything		

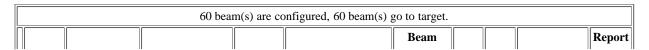
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Driver / 26200

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26200



	Beams	Group Name	Energy	Pointing	Focusing	Delay (ns)	DPP	DPR	Termination	Group
$\ \ $	11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26200

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-14		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26200

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4 Burke, M.	
TIM 5	Ride Along	CVD Diamond Detector - 1	

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TIM 6 Ride Along Neutron Imaging System - LANL Wilde, C.

Fixed Diagnostics / 26200

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1) Bahr, R.	
H12F	Secondary	Gated Microscope XR Imager (1) Marshall	
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	ry Kirkpatrick Baez XR Microscope (3) Marshall, F	
H12C	Secondary	XR Pinhole Camera (H12) Marshall, F.	
H13C	Secondary	XR Pinhole Camera (H13) Marshall, F	

Neutron Diagnostics / 26200

Primary Radiation	DT		
Expected Yield	5.00E+12		
Priority	Description	Contact	
Primary	Activation Retractor (Copper)	Glebov, V.	
Secondary	High Yield Neutron Bang-Time Detector (1)		
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.	
Primary	Neutron Temporal Diagnostic (1)		
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.	
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.	

TIM 1 - GCD 1 / 26200 Operating Procedures

Description	Gas Cherenkov Detector	
Gas Fill	CO2	
Gas Pressure	100 psi	
Secondary Gamma Foil	No	
Foil Material		

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Foil Thickness	
Comments	

FIXED H12F - GMXI 1 / 26200

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+1mil Al
Filter used for image B	1mil Be+2mil Al
Filter used for image C	1mil Be+3mil Al
Filter used for image D	1mil Be+4mil Al

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TIM 6 - NIS LANL / 26200 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26200 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	10 cm
Trigger Delay	4999842.7 ns
Fiducial Delay Box	NTD-6

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FIXED P4H - CPS 1 / 26200 Operating Procedures

Description	Charged Particle Spectrometer	
Slit Width 1 mm		
Comments	CPS1&2 for DD-p (YDD ~8e10)	

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FIXED H1 - CPS 2 / 26200 Operating Procedures

Description	Charged Particle Spectrometer	
Slit Width	2 mm	
Comments	CPS1&2 for DD-p (YDD ~8e10)	

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TIM 3 - WRFM 3 / 26200 Operating Procedures

Description	Wedge Range Filter Module	
Distance to TCC	30.0 cm	
Rotation		
Steering	tec	
Comments	For the first time, measure secondary protons in a DT neutron background. (YD3He ~7e7)	
Filter Pack	WRF	
Windows		
Filter	Blast Shield	
W1 WRF		
W2		

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TIM 4 - WRFM 4 / 26200 Operating Procedures

Description	Wedge Range Filter Module	
Distance to TCC	30.0 cm	
Rotation		
Steering	tcc	
Comments	For the first time, measure secondary protons in a DT neutron background. (YD3He ~7e7)	
Filter Pack	WRF	
Windows Filter W1 WRF W2 W3 W4	Blast Shield	

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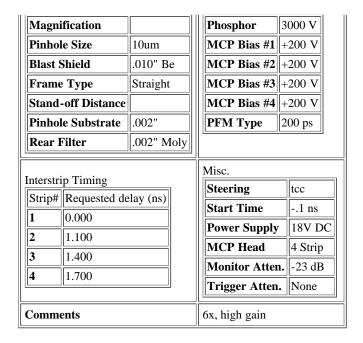
FIXED H13F - KBMICRO 3 / 26200

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

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TIM 2 - QXI 1 / 26200

Description	LANL XR Framing Camera
Optics	
Nosecone Type LANL	Internal Settings



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FIXED H12C - XRPHC H12 / 26200 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26200 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm

DetectorCIDMagnification4.0Added Filtration.001" Cu (PI Supplied)

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TIM 5 - DD-RIC 1 / 26200 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	50 cm
Bias	1500 Volts
Comment	
Steering	tcc

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FIXED B25 - FABS 1 / 26200

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26202 Last Modified: [08-Aug-2008 12:08:16] -- Shot Number: 52070 at 06-Aug-2008 16:08:17

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H						
26202		QXI- 1	WRFM- 3	WRFM-	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2	1 1	XRPHC- H12	GMXI-	XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	ACTR- Copper	HYNBT-	HYNTD- 1	NTD- 1	E	SCC- G 12M NTOF H

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General / 26202

Shot Scope	OMEGA Only					
Campaign	LANL-HED	Planned Date	06-Aug-2008			
Series Name	DTRat	Shot Series	6			
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14			
PI List	Horsfield/Colin//	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt			
F1 List	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective				
Special Instructions						
Abort Criteria	Abort on anything					

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Driver / 26202

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26202

	60 beam(s) are configured, 60 beam(s) go to target.									
	Beams	Group Name	Energy	Pointing	Focusing	Beam Delay (ns)	DPP	DPR	Termination	Report Group
Г	11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26202

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-5		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping N N		N	

Record Target Pressure?	N	N	N	
Alignment Proc.				
Target Detection?	Y			
Smart Camera Algorithm	t Camera Algorithm :			
Cryogenic Target	No			
MCTC				

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TIM / 26202

Location	Priority	Description	Contact
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	
TIM 6	Ride Along	Neutron Imaging System - LANL	Wilde, C.

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Fixed Diagnostics / 26202

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1) Burke, N	
B25	Secondary	Full Aperture Backscatter System (1) Bahr, R.	
H12F	Secondary	Gated Microscope XR Imager (1) Marshall	
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3) Marshall	
H12C	Secondary	XR Pinhole Camera (H12) Marshall,	
H13C	Secondary	XR Pinhole Camera (H13) Marshall,	

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Neutron Diagnostics / 26202

Primary Radiation	DT	
Expected Yield	5.00E+12	
Priority	Description	Contact
Primary	Activation Retractor (Copper)	Glebov, V.
Secondary	High Yield Neutron Bang-Time Detector (1)	
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.
Primary	Neutron Temporal Diagnostic (1)	
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.

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FIXED H12F - GMXI 1 / 26202

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al

Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26202 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26202 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	10 cm
Trigger Delay	4999842.7 ns
Fiducial Delay Box	NTD-6

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FIXED P4H - CPS 1 / 26202 Operating Procedures

Description	Charged Particle Spectrometer
Slit Width	1 mm
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~8e9)

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FIXED H1 - CPS 2 / 26202 Operating Procedures

Description	Charged Particle Spectrometer
Slit Width	2 mm
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~8e9)

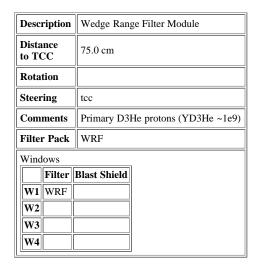
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TIM 3 - WRFM 3 / 26202 Operating Procedures

Description	Wedge Range Filter Module					
Distance to TCC	75.0 cm					
Rotation						
Steering	tcc					
Comments	Primary D3He protons (YD3He ~1e9)					
Filter Pack	WRF					
Windows						
Filter	Blast Shield					
W1 WRF						

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TIM 4 - WRFM 4 / 26202 Operating Procedures



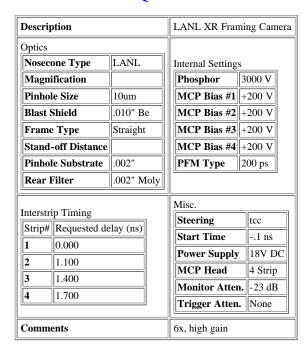
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FIXED H13F - KBMICRO 3 / 26202

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

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TIM 2 - QXI 1 / 26202



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FIXED H12C - XRPHC H12 / 26202 Operating Procedures

Description	XR Pinhole Camera							
Total Fixed Filtration	0.006" Be							
Pinhole to image	648 mm							
Pinhole diameter	10 um							
Pinhole to target	162.5 mm							
Detector	CID							
Magnification	4.0							
Added Filtration	.001" Fe (PI Supplied)							

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FIXED H13C - XRPHC H13 / 26202 Operating Procedures

Description	XR Pinhole Camera						
Total Fixed Filtration	0.006" Be						
Pinhole to image	648 mm						
Pinhole diameter	10 um						
Pinhole to target	162.5 mm						
Detector	CID						
Magnification	4.0						
Added Filtration	.001" Cu (PI Supplied)						

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TIM 5 - DD-RIC 1 / 26202 Operating Procedures

Description	CVD Diamond Detector 20 cm 1500 Volts				
Dist. to TCC	20 cm				
Bias	1500 Volts				
Comment					
Steering	tcc				

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FIXED B25 - FABS 1 / 26202

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

$Report\ for\ RID\ 26203\ Last\ Modified: [08-Aug-2008\ 12:12:46] --\ Shot\ Number:\ 52071\ at\ 06-Aug-2008\ 17:02:40$

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H						
26203		<u>QXI-</u> 1	WRFM-	WRFM-	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2		XRPHC- H12	GMXI-	XRPHC- H13	KBMICRO-	<u>CPS-</u> <u>1</u>	ACTR- Copper	HYNBT-	HYNTD- 1	<u>NTD-</u> 1	E	SCC- G 12M NTOF H

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General / 26203

Shot Scope	OMEGA Only				
Campaign	LANL-HED	Planned Date	06-Aug-2008		
Series Name	DTRat	Shot Series	7		
	Herrmann/Hans/505-665-5075/ Horsfield/Colin// Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14		
DI I tot		Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt		
F1 List		Secondary Objective			
Special Instructions					
Abort Criteria	Abort on anything				

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Driver / 26203

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26203

60 beam(s) are configured, 60 beam(s) go to target.									
Beams Group Name Energy Pointing Focusing Beam DPP DPR Termination Group									
11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26203

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-13		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N

Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26203

Location	Priority	Description	Contact
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	
TIM 6	Ride Along	Neutron Imaging System - LANL	Wilde, C.

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Fixed Diagnostics / 26203

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1)	Bahr, R.
H12F	Secondary	Gated Microscope XR Imager (1)	Marshall, F.
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3)	Marshall, F.
H12C	Secondary	XR Pinhole Camera (H12)	Marshall, F.
H13C	Secondary	XR Pinhole Camera (H13)	Marshall, F.

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Neutron Diagnostics / 26203

Primary Radiation	DT			
Expected Yield	5.00E+12			
Priority	Description	Contact		
Primary	Activation Retractor (Copper)	Glebov, V.		
Secondary	High Yield Neutron Bang-Time Detector (1)			
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.		
Primary	Neutron Temporal Diagnostic (1)			
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.		
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.		

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FIXED H12F - GMXI 1 / 26203

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al

Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26203 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26203 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	10 cm
Trigger Delay	4999842.7 ns
Fiducial Delay Box	NTD-6

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FIXED P4H - CPS 1 / 26203 Operating Procedures

Description	Charged Particle Spectrometer
Slit Width	1 mm
Comments	CPS1&2 for DD-p (YDD ~8e10)

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FIXED H1 - CPS 2 / 26203 Operating Procedures

Description	Charged Particle Spectrometer						
Slit Width	2 mm						
Comments	CPS1&2 for DD-p (YDD ~8e10)						

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TIM 3 - WRFM 3 / 26203 Operating Procedures

Description	Wedge Range Filter Module						
Distance to TCC	30.0 cm						
Rotation							
Steering	tcc						
Comments	For the first time, measure secondary protons in a DT neutron background. (YD3He ~7e'						
Filter Pack	WRF						
Windows Filter W1 WRF	Blast Shield						

W3	72	W2		W2
WA .	73	W3		W3
	74	W4	ا	W4

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TIM 4 - WRFM 4 / 26203 Operating Procedures

Description	Wedge Range Filter Module									
Distance to TCC	30.0 cm									
Rotation										
Steering	tcc									
Comments	For the first time, measure secondary protons in a DT neutron background. (YD3He ~7e7)									
Filter Pack	WRF									
Windows W1 WRF W2 W3 W4	Blast Shield									

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FIXED H13F - KBMICRO 3 / 26203

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26203

Descrip	otion		LANL XR Framing Camera						
Optics									
Noseco	one Type	LANL		Internal Settings					
Magni	fication			Phosphor 3000 V					
Pinhol	e Size	10um		MCP Bias #1 +200 V					
Blast S	Shield	.010" Be		MCP Bias #2 +200 V					
Frame	Туре	Straight		MCP Bias #3 +200 V					
Stand-	off Distance			MCP Bias #4 +200 V					
Pinhol	e Substrate	.002"		PFM Type 200 ps					
Rear I	Filter	.002" Mo	oly						
I				Misc.					
$\overline{}$	Priming Requested de	lov (nc)		Steering tcc					
÷	<u> </u>	elay (ns)		Start Time1 ns					
1	0.000			Power Supply 18V DC					
2	1.100			MCP Head 4 Strip					
3	1.400			Monitor Atten23 dB					
4	1.700			Trigger Atten. None					
Commo	ents			6x, high gain					

Тор

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FIXED H12C - XRPHC H12 / 26203 Operating Procedures

Description	XR Pinhole Camera						
Total Fixed Filtration	0.006" Be						
Pinhole to image	648 mm						
Pinhole diameter	10 um						
Pinhole to target	162.5 mm						
Detector	CID						
Magnification	4.0						
Added Filtration	.001" Fe (PI Supplied)						

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FIXED H13C - XRPHC H13 / 26203 Operating Procedures

Description	XR Pinhole Camera						
Total Fixed Filtration	0.006" Be						
Pinhole to image	648 mm						
Pinhole diameter	10 um						
Pinhole to target	162.5 mm						
Detector	CID						
Magnification	4.0						
Added Filtration	.001" Cu (PI Supplied)						

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TIM 5 - DD-RIC 1 / 26203 Operating Procedures

Description	CVD Diamond Detector					
Dist. to TCC	30 cm					
Bias	1500 Volts					
Comment						
Steering	tcc					

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FIXED B25 - FABS 1 / 26203

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26204 Last Modified: [06-Aug-2008 17:31:55] -- Planned Shot Date: 06-Aug-2008

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H					
26204	GCD- 1	QXI- 1	WRFM- 3	WRFM- 4	<u>DD-</u> <u>RIC-</u> <u>1</u>	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	1	XRPHC- H13	KBMICRO-	CPS- 1	ACTR- Copper	HYNBT-	HYNTD-	F 12M NTOF	SCC- G 12M NTOF H

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General / 26204

Shot Scope	OMEGA Only					
Campaign	LANL-HED	Planned Date	06-Aug-2008			
Series Name	DTRat	Shot Series	8			
	Herrmann/Hans/505-665-5075/ Horsfield/Colin// Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14			
PI List		Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt			
FI List		Secondary Objective				
Special Instructions	Special Instructions					
Abort Criteria	Abort on anything					

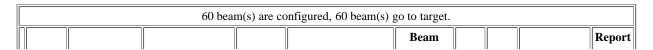
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Driver / 26204

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26204



	Beams	Group Name	Energy	Pointing	Focusing	Delay (ns)	DPP	DPR	Termination	Group
$\ \ $	11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26204

	Target 1	Target 2	Target 3
Target ID	Target ID IDC LANL 08-4 DTRAT-08A-15		
Type SiGDP capsule - 0 atm 3He			
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26204

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	

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TIM 6 Ride Along Neutron Imaging System - LANL Wilde, C.

Fixed Diagnostics / 26204

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2) Burke, N	
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1) Bahr, R.	
H12F	Secondary	Gated Microscope XR Imager (1) Marshall,	
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3) Marshall, l	
H12C	Secondary	XR Pinhole Camera (H12) Marshall,	
H13C	Secondary	XR Pinhole Camera (H13) Marshall, I	

Neutron Diagnostics / 26204

Primary Radiation	DT			
Expected Yield	5.00E+12			
Priority	Description	Contact		
Primary Activation Retractor (Copper)		Glebov, V.		
Secondary	High Yield Neutron Bang-Time Detector (1)			
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.		
Primary	Neutron Temporal Diagnostic (1)			
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.		
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.		

TIM 1 - GCD 1 / 26204 Operating Procedures

Description	Gas Cherenkov Detector	
Gas Fill	CO2	
Gas Pressure	100 psi	
Secondary Gamma Foil	No	
Foil Material		

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Foil Thickness	
Comments	

FIXED H12F - GMXI 1 / 26204

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26204 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26204 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	10 cm
Trigger Delay	4999842.7 ns
Fiducial Delay Box	NTD-5

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FIXED P4H - CPS 1 / 26204 Operating Procedures

Description Charged Particle Spectrometer						
Slit Width	2 mm					
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~5e10)					

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FIXED H1 - CPS 2 / 26204 Operating Procedures

Description Charged Particle Spectrometer						
Slit Width 2 mm						
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~5e10)					

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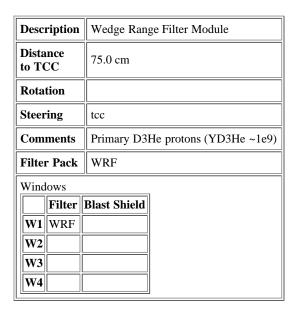
TIM 3 - WRFM 3 / 26204 Operating Procedures

Desc	ription	Wedge Range Filter Module					
Dista to TO		75.0 cm					
Rota	tion						
Steer	ing	tee					
Com	ments	Primary D3He protons (YD3He ~1e9)					
Filter	r Pack	WRF					
Wind	lows						
	Filter	Blast Shield					
W1	WRF						
W2							

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TIM 4 - WRFM 4 / 26204 Operating Procedures



FIXED H13F - KBMICRO 3 / 26204

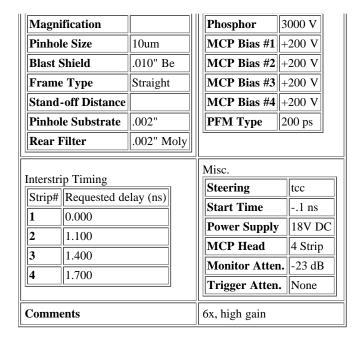
Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26204

Description		LANL XR Framing Camera
Optics		
Nosecone Type	LANL	Internal Settings

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FIXED H12C - XRPHC H12 / 26204 Operating Procedures

Description	XR Pinhole Camera				
Total Fixed Filtration	0.006" Be				
Pinhole to image	648 mm				
Pinhole diameter	10 um				
Pinhole to target	162.5 mm				
Detector	CID				
Magnification	4.0				
Added Filtration	.001" Fe (PI Supplied)				

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FIXED H13C - XRPHC H13 / 26204 Operating Procedures

Description	XR Pinhole Camera				
Total Fixed Filtration	0.006" Be				
Pinhole to image	648 mm				
Pinhole diameter	10 um				
Pinhole to target	162.5 mm				

DetectorCIDMagnification4.0Added Filtration.001" Cu (PI Supplied)

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TIM 5 - DD-RIC 1 / 26204 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	80 cm
Bias	1500 Volts
Comment	
Steering	tec

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FIXED B25 - FABS 1 / 26204

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26205 Last Modified: [08-Aug-2008 12:16:00] -- Shot Number: 52072 at 06-Aug-2008 17:54:13

Т	'IM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H						
																				SCC-	SCC-
26	5205	<u>Q</u> 1	<u>)XI-</u>	<u>WRFM-</u> <u>3</u>	<u>WRFM-</u> <u>4</u>	DD- RIC- 1	<u>NIS-</u> LANL	1	<u>CPS-</u> 2	1	XRPHC- H12		XRPHC- H13	KBMICRO- 3	<u>CPS-</u> 1	ACTR- Copper	ll.	HYNTD- 1	<u>NTD-</u> <u>1</u>	12M	12M NTOF
																				L	H

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General / 26205

Shot Scope	OMEGA Only								
Campaign	LANL-HED	Planned Date	06-Aug-2008						
Series Name	DTRat	Shot Series	9						
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14						
PI List	Horsfield/Colin// Frenje/Johan/(617)452-4941/	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt						
I List	Kyrala/George/(505) 667-7649/996-3297	Secondary Objective							
Special Instructions									
Abort Criteria	Abort on anything								

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Driver / 26205

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26205

60 beam(s) are configured, 60 beam(s) go to target.									
Beams	Group Name	Energy	Pointing	Focusing	Beam Delay (ns)	DPP	DPR	Termination	Report Group
11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26205

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-12		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N

Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26205

Location	Priority	Description	Contact
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	
TIM 6	Ride Along	Neutron Imaging System - LANL	Wilde, C.

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Fixed Diagnostics / 26205

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1)	Bahr, R.
H12F	Secondary	Gated Microscope XR Imager (1)	Marshall, F.
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3)	Marshall, F.
H12C	Secondary	XR Pinhole Camera (H12)	Marshall, F.
H13C	Secondary	XR Pinhole Camera (H13)	Marshall, F.

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Neutron Diagnostics / 26205

Primary Radiation	DT			
Expected Yield	5.00E+12			
Priority	Description	Contact		
Primary	Activation Retractor (Copper)	Glebov, V.		
Secondary	High Yield Neutron Bang-Time Detector (1)			
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.		
Primary	Neutron Temporal Diagnostic (1)			
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.		
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.		

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FIXED H12F - GMXI 1 / 26205

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al

Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26205 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26205 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	6 cm
Trigger Delay	4999841.7 ns
Fiducial Delay Box	NTD-5

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FIXED P4H - CPS 1 / 26205 Operating Procedures

Description	Charged Particle Spectrometer
Slit Width	1 mm
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~8e9)

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FIXED H1 - CPS 2 / 26205 Operating Procedures

	Description	Charged Particle Spectrometer
	Slit Width	2 mm
Comments CPS1&2 for DD-p, D3I		CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~8e9)

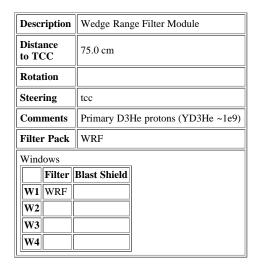
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TIM 3 - WRFM 3 / 26205 Operating Procedures

Description	Wedge Range Filter Module			
Distance to TCC	75.0 cm			
Rotation				
Steering	tcc			
Comments	Primary D3He protons (YD3He ~1e9)			
Filter Pack	WRF			
Windows Filter W1 WRF	Blast Shield			

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TIM 4 - WRFM 4 / 26205 Operating Procedures



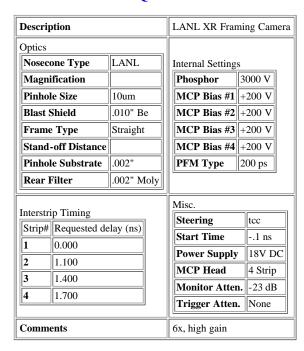
<u>Top</u>

FIXED H13F - KBMICRO 3 / 26205

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

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TIM 2 - QXI 1 / 26205



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FIXED H12C - XRPHC H12 / 26205 Operating Procedures

Description XR Pinhole Came					
Total Fixed Filtration	0.006" Be				
Pinhole to image	648 mm				
Pinhole diameter	10 um				
Pinhole to target	162.5 mm				
Detector	CID				
Magnification	4.0				
Added Filtration	.001" Fe (PI Supplied)				

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FIXED H13C - XRPHC H13 / 26205 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Cu (PI Supplied)

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TIM 5 - DD-RIC 1 / 26205 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	10 cm
Bias	1500 Volts
Comment	
Steering	tcc

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FIXED B25 - FABS 1 / 26205

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26206 Last Modified: [06-Aug-2008 17:33:20] -- Planned Shot Date: 06-Aug-2008

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H					
26206	GCD- 1	QXI- 1	WRFM-	WRFM- 4	DD- RIC- 1	NIS- LANL	FABS-	CPS- 2	HXRD- 1-4	XRPHC- H12		XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	ACTR-Copper	HYNBT-	HYNTD- 1	F 12M	SCC- G 12M NTOF H

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General / 26206

Shot Scope	OMEGA Only								
Campaign	LANL-HED	Planned Date	06-Aug-2008						
Series Name	DTRat	Shot Series	10						
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14						
PI List	Horsfield/Colin//	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt						
PI List	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective							
Special Instructions									
Abort Criteria	Abort on anything								

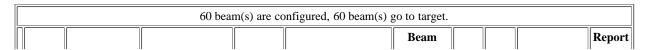
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Driver / 26206

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						_

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Beams / 26206



	Beams	Group Name	Energy	Pointing	Focusing	Delay (ns)	DPP	DPR	Termination	Group
$\ \ $	11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26206

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-7		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26206

Location	Priority	Priority Description			
TIM 1	Primary	Gas Cherenkov Detector - 1			
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.		
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.		
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.		
TIM 5	Ride Along	CVD Diamond Detector - 1			

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TIM 6 Ride Along Neutron Imaging System - LANL Wilde, C.

Fixed Diagnostics / 26206

Port	Priority	Description Contact	
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1) Burke, M.	
B25	Secondary	Full Aperture Backscatter System (1) Bahr, R.	
H12F	Secondary	Gated Microscope XR Imager (1) Marshall, F.	
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3) Marshall, F.	
H12C	Secondary	XR Pinhole Camera (H12) Marshall, F.	
H13C	Secondary	XR Pinhole Camera (H13) Marshall, F.	

Neutron Diagnostics / 26206

Primary Radiation	DT		
Expected Yield	5.00E+12		
Priority	Description Contact		
Primary	Activation Retractor (Copper)	Glebov, V.	
Secondary	High Yield Neutron Bang-Time Detector (1)		
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.	
Primary Neutron Temporal Diagnostic (1)			
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.	
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.	

TIM 1 - GCD 1 / 26206 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	

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Foil Thickness

Comments

FIXED H12F - GMXI 1 / 26206

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	5 Degrees
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26206 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26206 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	10 cm
Trigger Delay	4999842.2 ns
Fiducial Delay Box	NTD-5

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FIXED P4H - CPS 1 / 26206 Operating Procedures

Description Charged Particle Spectrometer	
Slit Width	2 mm
Comments	CPS1&2 for DD-p (YDD ~8e10)

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FIXED H1 - CPS 2 / 26206 Operating Procedures

Description Charged Particle Spectrometer	
Slit Width	2 mm
Comments	CPS1&2 for DD-p (YDD ~8e10)

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TIM 3 - WRFM 3 / 26206 Operating Procedures

Description	Wedge Range Filter Module	
Distance to TCC	30.0 cm	
Rotation		
Steering	tcc	
Comments	For the first time, measure secondary protons in a DT neutron background. (YD3He ~7e7)	
Filter Pack	WRF	
Windows		
	Blast Shield	
W1 WRF W2		

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TIM 4 - WRFM 4 / 26206 Operating Procedures

Description	Wedge Range Filter Module
Distance to TCC	30.0 cm
Rotation	
Steering	tcc
Comments	For the first time, measure secondary protons in a DT neutron background. (YD3He ~7e7)
Filter Pack	WRF
Windows Filter W1 WRF W2 W3 W4	Blast Shield

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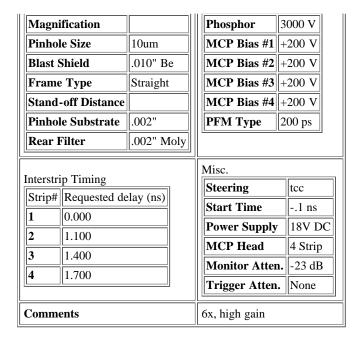
FIXED H13F - KBMICRO 3 / 26206

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

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TIM 2 - QXI 1 / 26206

Description	LANL XR Framing Camera
Optics	
Nosecone Type LANL	Internal Settings



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FIXED H12C - XRPHC H12 / 26206 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26206 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm

DetectorCIDMagnification4.0Added Filtration.001" Cu (PI Supplied)

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TIM 5 - DD-RIC 1 / 26206 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	20 cm
Bias	1500 Volts
Comment	
Steering	tcc

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FIXED B25 - FABS 1 / 26206

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26207 Last Modified: [05-Mar-2009 08:28:02] -- Planned Shot Date: 06-Aug-2008

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H					
26207	GCD- 1	QXI- 1	WRFM- 3	WRFM- 4	<u>DD-</u> <u>RIC-</u> <u>1</u>	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	1	XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	ACTR- Copper	HYNBT-	HYNTD-	F 12M NTOF	SCC- G 12M NTOF H

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General / 26207

Shot Scope	OMEGA Only			
Campaign	LANL-HED	Planned Date	06-Aug-2008	
Series Name	DTRat	Shot Series	11	
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14	
PI List	Horsfield/Colin//	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt	
PI List	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective		
Special Instructions				
Abort Criteria Abort on anything				

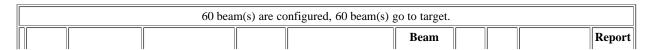
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Driver / 26207

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26207



Beams	Group Name	Energy	Pointing	Focusing	Delay (ns)	DPP	DPR	Termination	Group
11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26207

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-18		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26207

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	

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TIM 6 Ride Along Neutron Imaging System - LANL Wilde, C.

Fixed Diagnostics / 26207

Port	Priority Description		Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1)	Bahr, R.
H12F	Secondary	Gated Microscope XR Imager (1)	Marshall, F.
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3)	Marshall, F.
H12C	Secondary	XR Pinhole Camera (H12)	Marshall, F.
H13C	Secondary	XR Pinhole Camera (H13)	Marshall, F.

Neutron Diagnostics / 26207

Primary Radiation	DT				
Expected Yield	5.00E+12				
Priority	Description	Contact			
Primary	Activation Retractor (Copper)	Glebov, V.			
Secondary	High Yield Neutron Bang-Time Detector (1)				
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.			
Primary	Neutron Temporal Diagnostic (1)				
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.			
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.			

TIM 1 - GCD 1 / 26207 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	

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Foil Thickness	
Comments	

FIXED H12F - GMXI 1 / 26207

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26207 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26207 Operating Procedures

Ir Ir

Description	Neutron Temporal Diagnostic				
Drive Type	Direct				
Expected bang Time	1500 ps				
Distance to TCC	6 cm				
Trigger Delay	4999841.7 ns				
Fiducial Delay Box	NTD-5				

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FIXED P4H - CPS 1 / 26207 Operating Procedures

Description Charged Particle Spectrometer							
Slit Width	2 mm						
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~5e10)						

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FIXED H1 - CPS 2 / 26207 Operating Procedures

Description Charged Particle Spectrometer							
Slit Width	2 mm						
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~5e10)						

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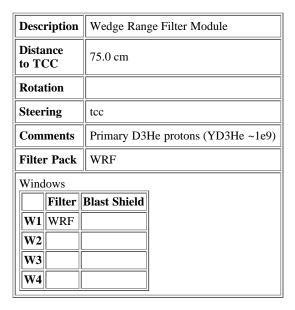
TIM 3 - WRFM 3 / 26207 Operating Procedures

Desc	ription	Wedge Range Filter Module				
Dista to TO		75.0 cm				
Rota	tion					
Steer	ing	tcc				
Com	ments	Primary D3He protons (YD3He ~1e9)				
Filter	r Pack	WRF				
Wind	lows					
	Filter	Blast Shield				
W1	WRF					
W2						

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TIM 4 - WRFM 4 / 26207 Operating Procedures



FIXED H13F - KBMICRO 3 / 26207

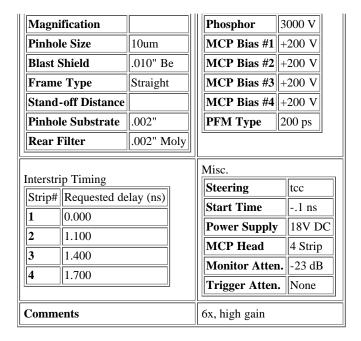
Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26207

Description		LANL XR Framing Camera
Optics		
Nosecone Type	LANL	Internal Settings

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FIXED H12C - XRPHC H12 / 26207 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26207 Operating Procedures

Description	XR Pinhole Camera				
Total Fixed Filtration	0.006" Be				
Pinhole to image	648 mm				
Pinhole diameter	10 um				
Pinhole to target	162.5 mm				

DetectorCIDMagnification4.0Added Filtration.001" Cu (PI Supplied)

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TIM 5 - DD-RIC 1 / 26207 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	80 cm
Bias	1500 Volts
Comment	
Steering	tcc

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FIXED B25 - FABS 1 / 26207

Description	Full Aperture Backscatter System					
Streak Camera	Yes					
Calorimeters	SRS25, SBS25					
12" Calorimeters (for calibration)	No					

Report for RID 26208 Last Modified: [06-Aug-2008 17:33:28] -- Planned Shot Date: 06-Aug-2008

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H						
26208	GCD- 1	QXI- 1	WRFM-3	WRFM- 4	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	1	XRPHC- H13	KBMICRO-	1	ACTR- Copper	_	HYNTD- 1	NTD- 1	F 12M	SCC- G 12M NTOF H

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General / 26208

Shot Scope	OMEGA Only								
Campaign	LANL-HED	Planned Date	06-Aug-2008						
Series Name	DTRat	Shot Series	12						
	Herrmann/Hans/505-665-5075/	Yield	Type 7b: High Yield, predicted* to exceed 3e11, but less than 3e14						
PI List	Horsfield/Colin//	Primary Objective	Effect of 3He addition on DT Yield, Reaction History & Rt						
FILISt	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective							
Special Instructions									
Abort Criteria	Abort on anything								

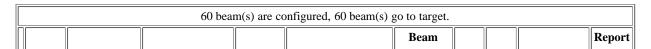
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Driver / 26208

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG0604		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						_

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Beams / 26208



Beams	Group Name	Energy	Pointing	Focusing	Delay (ns)	DPP	DPR	Termination	Group
11-60	Drive	260 J/Beam (UV)	tcc	0 mm (lens position)	0	SG4	Yes	Target	A

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Target / 26208

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-4 DTRAT-08A-9		
Туре	SiGDP capsule - 0 atm 3He		
Diameter	.100 um		
Shape	Spherical		
Type of Gas	DT		
DT Target	Y		
Positioner			
Hazards	Tritium		
Beryllium			
Uranium			
Instructions	-Record 3He depress time -Target Mount .2" < standard mount		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26208

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	

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TIM 6 Ride Along Neutron Imaging System - LANL Wilde, C.

Fixed Diagnostics / 26208

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2) Burke, M	
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1)	Bahr, R.
H12F	Secondary	Gated Microscope XR Imager (1) Marshall, F.	
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3) Marshall, F.	
H12C	Secondary	XR Pinhole Camera (H12) Marshall, F.	
H13C	Secondary	XR Pinhole Camera (H13) Marshall, F	

Neutron Diagnostics / 26208

Primary Radiation	DT	
Expected Yield	5.00E+12	
Priority	Description	Contact
Primary	Activation Retractor (Copper)	Glebov, V.
Secondary	High Yield Neutron Bang-Time Detector (1)	
Primary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.
Primary	Neutron Temporal Diagnostic (1)	
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.
Primary	Scintillator Counter (G 12M NTOF H)	Glebov, V.

TIM 1 - GCD 1 / 26208 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	

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Foil Thickness	
Comments	

FIXED H12F - GMXI 1 / 26208

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26208 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26208 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	10 cm
Trigger Delay	4999842.2 ns
Fiducial Delay Box	NTD-5

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FIXED P4H - CPS 1 / 26208 Operating Procedures

Description	Charged Particle Spectrometer	
Slit Width	2 mm	
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~8e9)	

FIXED H1 - CPS 2 / 26208 Operating Procedures

Description Charged Particle Spectrometer								
Slit Width 2 mm								
Comments	CPS1&2 for DD-p, D3He-p and T3He-d (YDD ~8e9)							

TIM 3 - WRFM 3 / 26208 Operating Procedures

Wedge Range Filter Module				
75.0 cm				
tec				
Primary D3He protons (YD3He ~1e9)				
WRF				
Blast Shield				

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TIM 4 - WRFM 4 / 26208 Operating Procedures

Descr	ription	Wedge Ran	Wedge Range Filter Module						
Dista to TC		75.0 cm							
Rotat	tion								
Steer	ing	tcc	tcc						
Comi	ments	Primary D3He protons (YD3He ~1e9)							
Filter	Pack	WRF							
Wind	ows								
	Filter	Blast Shield							
W1	WRF								
W2									
W3									
W4									

FIXED H13F - KBMICRO 3 / 26208

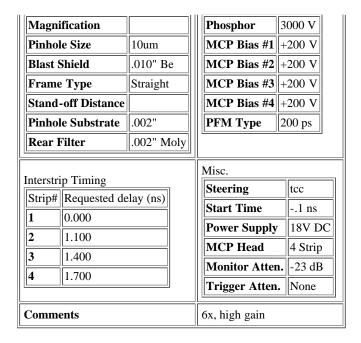
Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26208

Description		LANL XR Framing Camera
Optics		
Nosecone Type	LANL	Internal Settings

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FIXED H12C - XRPHC H12 / 26208 Operating Procedures

Description	XR Pinhole Camera				
Total Fixed Filtration	0.006" Be				
Pinhole to image	648 mm				
Pinhole diameter	10 um				
Pinhole to target	162.5 mm				
Detector	CID				
Magnification	4.0				
Added Filtration	.001" Fe (PI Supplied)				

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FIXED H13C - XRPHC H13 / 26208 Operating Procedures

Description	XR Pinhole Camera				
Total Fixed Filtration	0.006" Be				
Pinhole to image	648 mm				
Pinhole diameter	10 um				
Pinhole to target	162.5 mm				

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Detector	CID
Magnification	4.0
Added Filtration	.001" Cu (PI Supplied)

TIM 5 - DD-RIC 1 / 26208 Operating Procedures

Description	CVD Diamond Detector				
Dist. to TCC	40 cm				
Bias	1500 Volts				
Comment					
Steering	tcc				

FIXED B25 - FABS 1 / 26208

Description	Full Aperture Backscatter System				
Streak Camera	Yes				
Calorimeters	SRS25, SBS25				
12" Calorimeters (for calibration)	No				

Report for RID 26209 Last Modified: [06-Aug-2008 14:01:59] -- Planned Shot Date: 06-Aug-2008

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H						
26209	GCD- 1	<u>QXI-</u> 1	WRFM-3	WRFM- 4	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	GMXI- 1	XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	HYNBT- 1	- <u>NTD-</u>	11000	D 5 4M	SCC-	SCC- F 12M NTOF L

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General / 26209

Shot Scope	OMEGA Only									
Campaign	LANL-HED	Planned Date	06-Aug-2008							
Series Name	DTRat	Shot Series	14							
	Herrmann/Hans/505-665-5075/	Yield	Type 7a: High Yield, predicted* to exceed 1e10, but less than 3e11							
PI List	Horsfield/Colin//	Primary Objective	Attempt to measure Reaction History using D/3He gammas							
F1 List	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective								
Special Instructions										
Abort Criteria	Abort on anything									

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Driver / 26209

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG1018		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26209

	60 beam(s) are configured, 60 beam(s) go to target.									
	Beams	Group Name	Energy	Pointing	Focusing	Beam Delay (ns)	DPP	DPR	Termination	Report Group
П										

| 11-60 | Drive | 500 J/Beam (UV) | tcc | 0 mm (lens position) | 0 | SG4 | Yes | Target | A

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Target / 26209

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-5 DTRAT-08A-8		
Туре	SiGDP capsule - 6.7 atm D2/13.4 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	D2/3He		
DT Target			
Positioner			
Hazards			
Beryllium			
Uranium			
Instructions	Record 3He depress time		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26209

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	
TIM 6	Ride Along	Neutron Imaging System - LANL	Wilde, C.

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Fixed Diagnostics / 26209

Port	Priority	Description	Contact	
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.	
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.	
B25	Secondary	Full Aperture Backscatter System (1)	Bahr, R.	
H12F	Secondary	Gated Microscope XR Imager (1)	Marshall, F.	
H10	Secondary	Hard XR Detector (1-4)		
H13F	Secondary	Kirkpatrick Baez XR Microscope (3)	Marshall, F.	
H12C	Secondary	XR Pinhole Camera (H12)	Marshall, F.	
H13C	Secondary	XR Pinhole Camera (H13)	Marshall, F.	

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Neutron Diagnostics / 26209

Primary Radiation	DD	
Expected Yield	1.00E+11	
Priority	Description	Contact
Secondary	High Yield Neutron Bang-Time Detector (1)	
Secondary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.
Primary	Neutron Temporal Diagnostic (1)	
Primary	Scintillator Counter (E 1.7M NTOF)	Glebov, V.
Primary	Scintillator Counter (D 5.4M NTOF)	Glebov, V.
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.
Secondary	Scintillator Counter (C 3M NTOF)	Glebov, V.

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TIM 1 - GCD 1 / 26209 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	
Foil Thickness	
Comments	

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FIXED H12F - GMXI 1 / 26209

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26209 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26209 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	3 cm

Trigger Delay 4999836 ns
Fiducial Delay Box NTD-7

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FIXED P4H - CPS 1 / 26209 Operating Procedures

Description	Charged Particle Spectrometer
Slit Width	1 mm
Comments	Simultaneous measurement of DD (1e11) & D3He (2e10) protons

FIXED H1 - CPS 2 / 26209 Operating Procedures

Description	Charged Particle Spectrometer
Slit Width	1 mm
Comments	Simultaneous measurement of DD (1e11) & D3He (2e10) protons

TIM 3 - WRFM 3 / 26209 Operating Procedures

	1				
Description	Wedge Range Filter Module				
Distance to TCC	175 cm				
Rotation					
Steering	tcc				
Comments	Expected D2/3He-p Yield ~ 2e10				
Filter Pack	WRF				
Windows					
Filter	Blast Shield				
W1 WRF					
W2					
W3					
W4					

TIM 4 - WRFM 4 / 26209 Operating Procedures

Description Wedge Range Filter Mo	odule
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Distance

SRF Reports

Rotation

Steering tcc

Comments Expected D2/3He-p Yield ~ 2e10

Filter Pack WRF

Windows

Filter Blast Shield
W1 WRF

W2

W3

W4

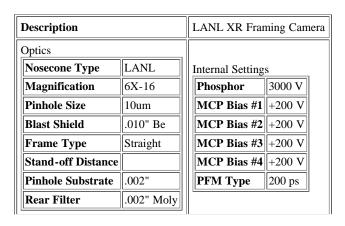
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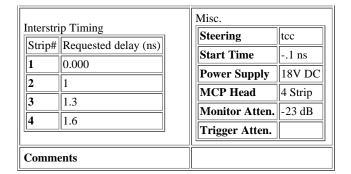
FIXED H13F - KBMICRO 3 / 26209

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

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TIM 2 - QXI 1 / 26209





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FIXED H12C - XRPHC H12 / 26209 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26209 Operating Procedures

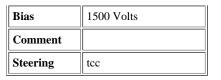
Description	XR Pinhole Camera					
Total Fixed Filtration	0.006" Be					
Pinhole to image	648 mm					
Pinhole diameter	10 um					
Pinhole to target	162.5 mm					
Detector	CID					
Magnification	4.0					
Added Filtration	.001" Cu (PI Supplied)					

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TIM 5 - DD-RIC 1 / 26209 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	40 cm

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FIXED B25 - FABS 1 / 26209

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26210 Last Modified: [05-Mar-2009 08:33:54] -- Planned Shot Date: 06-Aug-2008

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H							
26210	GCD-1	<u>QXI-</u> 1	WRFM-3	WRFM- 4	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	1	XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	HYNBT-	HYNTD- 1	NTD- 1	SCC- C 3M NTOF	D 5.4M	SCC- E 1.7M	SCC- F 12M NTOF L

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General / 26210

Shot Scope	OMEGA Only		
Campaign	LANL-HED	Planned Date	06-Aug-2008
Series Name	DTRat	Shot Series	15
	Herrmann/Hans/505-665-5075/	Yield	Type 7a: High Yield, predicted* to exceed 1e10, but less than 3e11
PI List	Horsfield/Colin//	Primary Objective	Attempt to measure Reaction History using D/3He gammas
P1 List	Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Secondary Objective	
Special Instructions			
Abort Criteria	Abort on anything		

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Driver / 26210

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG1018		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26210

	60 beam(s) are configured, 60 beam(s) go to target.										
	Beams	Group Name	Energy	Pointing	Focusing	Beam Delay (ns)	DPP	DPR	Termination	Report Group	
П											

| 11-60 | Drive | 500 J/Beam (UV) | tcc | 0 mm (lens position) | 0 | SG4 | Yes | Target | A

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Target / 26210

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-5 DTRAT-08A-16		
Туре	SiGDP capsule - 6.7 atm D2/13.4 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	D2/3He		
DT Target			
Positioner			
Hazards			
Beryllium			
Uranium			
Instructions	Record 3He depress time		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26210

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	
TIM 6	Ride Along	Neutron Imaging System - LANL	Wilde, C.

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Fixed Diagnostics / 26210

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary Full Aperture Backscatter System (1)		Bahr, R.
H12F	Secondary	Gated Microscope XR Imager (1)	Marshall, F.
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary Kirkpatrick Baez XR Microscope (3)		Marshall, F.
H12C	Secondary XR Pinhole Camera (H12)		Marshall, F.
H13C	Secondary XR Pinhole Camera (H13)		Marshall, F.

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Neutron Diagnostics / 26210

Primary Radiation	DD 1.00E+11	
Expected Yield		
Priority	Description	Contact
Secondary	High Yield Neutron Bang-Time Detector (1)	
Secondary	High Yield Neutron Temporal Diagnostic (1)	Glebov, V.
Primary	Neutron Temporal Diagnostic (1)	
Primary	Scintillator Counter (E 1.7M NTOF)	Glebov, V.
Primary	Scintillator Counter (D 5.4M NTOF)	Glebov, V.
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.
Secondary	Scintillator Counter (C 3M NTOF)	Glebov, V.

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TIM 1 - GCD 1 / 26210 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	
Foil Thickness	
Comments	

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FIXED H12F - GMXI 1 / 26210

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26210 Operating Procedures

Description	Neutron Imaging System
Aperture Desc.	Triple mini-penumbral aperture
Beta Mix Reflector	
NXI Installed?	N
Detector Pack	
Detector Filter	
In-Floor LOS Neutron Collimator	
Comment	Will contact shot director to remove aperture on last couple shots
Steering	tcc

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NEUTRON - NTD 1 / 26210 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	3 cm

Trigger Delay 4999836 ns
Fiducial Delay Box NTD-7

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FIXED P4H - CPS 1 / 26210 Operating Procedures

Description	Description Charged Particle Spectrometer	
Slit Width 1 mm		
Comments Simultaneous measurement of DD (1e11) & D3He (2e10) p		

FIXED H1 - CPS 2 / 26210 Operating Procedures

Description	Charged Particle Spectrometer 1 mm Simultaneous measurement of DD (1e11) & D3He (2e10) protons	
Slit Width		
Comments		

TIM 3 - WRFM 3 / 26210 Operating Procedures

Description	Wedge Range Filter Module
Distance to TCC	175 cm
Rotation	
Steering	tcc
Comments	Expected D2/3He-p Yield ~ 2e10
Filter Pack	
Windows	
Filter	Blast Shield
W1	
W2	
W3	
W4	

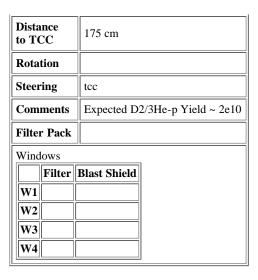
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TIM 4 - WRFM 4 / 26210 Operating Procedures

	Description	Wedge Range Filter Module
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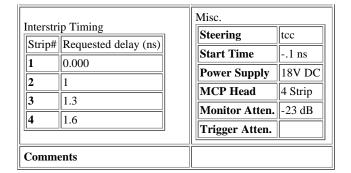


FIXED H13F - KBMICRO 3 / 26210

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26210

Description			LANL XR Framing Camera			
Optics						
Nosecone Type	LANL		Internal Setting	s		
Magnification	6X-16		Phosphor	3000 V		
Pinhole Size	10um		MCP Bias #1	+200 V		
Blast Shield	.010" Be		MCP Bias #2	+200 V		
Frame Type	Straight		MCP Bias #3	+200 V		
Stand-off Distance			MCP Bias #4	+200 V		
Pinhole Substrate	.002"		PFM Type	200 ps		
Rear Filter	.002" Moly					



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FIXED H12C - XRPHC H12 / 26210 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26210 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Cu (PI Supplied)

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TIM 5 - DD-RIC 1 / 26210 Operating Procedures

Description	CVD Diamond Detector
Dist. to TCC	40 cm

tcc

Bias

SRF Reports

| Comment |
| Steering |

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FIXED B25 - FABS 1 / 26210

1500 Volts

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No

Report for RID 26211 Last Modified: [04-Aug-2008 15:33:48] -- Planned Shot Date: 06-Aug-2008

TIM	1	2	3	4	5	6	B25	H1	H10	H12C	H12F	H13C	H13F	P4H							
26211	GCD-1	<u>QXI-</u> 1	WRFM-3	WRFM- 4	DD- RIC- 1	NIS- LANL	FABS-	<u>CPS-</u> 2	HXRD- 1-4	XRPHC- H12	GMXI- 1	XRPHC- H13	KBMICRO-	<u>CPS-</u> 1	HYNBT-	HYNTD- 1	NTD- 1	SCC- C 3M NTOF	D 5.4M	SCC- E 1.7M	SCC- F 12M NTOF L

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General / 26211

Shot Scope	OMEGA Only		
Campaign	LANL-HED	Planned Date	06-Aug-2008
Series Name	DTRat	Shot Series	16
	Herrmann/Hans/505-665-5075/ Horsfield/Colin// Frenje/Johan/(617)452-4941/ Kyrala/George/(505) 667-7649/996-3297 Glebov/Vladimir/57454/18775222067	Yield	Type 7a: High Yield, predicted* to exceed 1e10, but less than 3e11
PI List		Primary Objective	Attempt to measure Reaction History using D/3He gammas
F1 List		Secondary Objective	
Special Instructions			
Abort Criteria	Abort on anything		

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Driver / 26211

Driver	Status	Pulse Shape	Request #	Timing Shift	Leg	X / Y Modulation
SSD	ON	SG1018		0 ns		OFF
Main	OFF			0 ns		
Backlighter	OFF			0 ns		
UV Fiducial	OFF					
Special Instructions						

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Beams / 26211

	60 beam(s) are configured, 60 beam(s) go to target.									
	Beams	Group Name	Energy	Pointing	Focusing	Beam Delay (ns)	DPP	DPR	Termination	Report Group
П										

| 11-60 | Drive | 500 J/Beam (UV) | tcc | 0 mm (lens position) | 0 | SG4 | Yes | Target | A

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Target / 26211

	Target 1	Target 2	Target 3
Target ID	IDC LANL 08-5 DTRAT-08A-24		
Туре	SiGDP capsule - 6.7 atm D2/13.4 atm 3He		
Diameter	1100 um		
Shape	Spherical		
Type of Gas	D2/3He		
DT Target			
Positioner			
Hazards			
Beryllium			
Uranium			
Instructions	Record 3He depress time		
Soft Rough Pumping	N	N	N
Record Target Pressure?	N	N	N
Alignment Proc.			
Target Detection?	Y		
Smart Camera Algorithm	:		
Cryogenic Target	No		
MCTC			

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TIM / 26211

Location	Priority	Description	Contact
TIM 1	Primary	Gas Cherenkov Detector - 1	
TIM 2	Primary	LANL XR Framing Camera - 1	Evans, S.
TIM 3	Primary	Wedge Range Filter Module - 3	Burke, M.
TIM 4	Primary	Wedge Range Filter Module - 4	Burke, M.
TIM 5	Ride Along	CVD Diamond Detector - 1	
TIM 6	Ride Along	Neutron Imaging System - LANL	Wilde, C.

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Fixed Diagnostics / 26211

Port	Priority	Description	Contact
H1	Primary	Charged Particle Spectrometer (2)	Burke, M.
P4H	Primary	Charged Particle Spectrometer (1)	Burke, M.
B25	Secondary	Full Aperture Backscatter System (1)	Bahr, R.
H12F	Secondary	Gated Microscope XR Imager (1)	Marshall, F.
H10	Secondary	Hard XR Detector (1-4)	
H13F	Secondary	Kirkpatrick Baez XR Microscope (3)	Marshall, F.
H12C	Secondary	XR Pinhole Camera (H12)	Marshall, F.
H13C	Secondary	XR Pinhole Camera (H13)	Marshall, F.

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Neutron Diagnostics / 26211

Primary Radiation	DD			
Expected Yield	1.00E+11			
Priority	Description Contact			
Secondary	High Yield Neutron Bang-Time Detector (1)			
Secondary	High Yield Neutron Temporal Diagnostic (1) Glebov, V			
Primary	Neutron Temporal Diagnostic (1)			
Primary	Scintillator Counter (E 1.7M NTOF)	Glebov, V.		
Primary	Scintillator Counter (D 5.4M NTOF)	Glebov, V.		
Primary	Scintillator Counter (F 12M NTOF L)	Glebov, V.		
Secondary	Scintillator Counter (C 3M NTOF)	Glebov, V.		

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TIM 1 - GCD 1 / 26211 Operating Procedures

Description	Gas Cherenkov Detector
Gas Fill	CO2
Gas Pressure	100 psi
Secondary Gamma Foil	No
Foil Material	
Foil Thickness	
Comments	

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FIXED H12F - GMXI 1 / 26211

Description	Gated Microscope XR Imager
Side 1 Crystal	
Side 2 Crystal	
Side 1 crystal angle	
Side 2 crystal angle	
Unframed image A	CID
Unframed image B	CID
Unframed image C	CID
Unframed image D	CID
Filter used for image A	1mil Be+3mil Al
Filter used for image B	1mil Be+4mil Al
Filter used for image C	1mil Be+5 mil Al
Filter used for image D	1mil Be+6 mil Al

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TIM 6 - NIS LANL / 26211 Operating Procedures

Description	Neutron Imaging System	
Aperture Desc.	Triple mini-penumbral aperture	
Beta Mix Reflector		
NXI Installed?	N	
Detector Pack		
Detector Filter		
In-Floor LOS Neutron Collimator		
Comment	Will contact shot director to remove aperture on last couple shots	
Steering	tcc	

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NEUTRON - NTD 1 / 26211 Operating Procedures

Description	Neutron Temporal Diagnostic
Drive Type	Direct
Expected bang Time	1500 ps
Distance to TCC	3 cm

Trigger Delay 4999836 ns
Fiducial Delay Box NTD-7

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FIXED P4H - CPS 1 / 26211 Operating Procedures

Description	Charged Particle Spectrometer	
Slit Width	1 mm	
Comments	Simultaneous measurement of DD (1e11) & D3He (2e10) protons	

FIXED H1 - CPS 2 / 26211 Operating Procedures

Description	Charged Particle Spectrometer	
Slit Width	1 mm	
Comments	Simultaneous measurement of DD (1e11) & D3He (2e10) protons	

TIM 3 - WRFM 3 / 26211 Operating Procedures

XX 1 D ET. X 1.1	
Wedge Range Filter Module	
175 cm	
tcc	
Expected D2/3He-p Yield ~ 2e10	
Blast Shield	

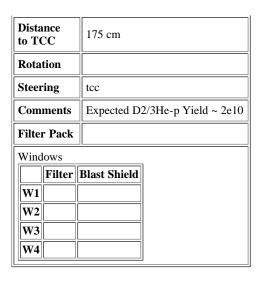
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TIM 4 - WRFM 4 / 26211 Operating Procedures

Description	Wedge Range Filter Module
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Тор

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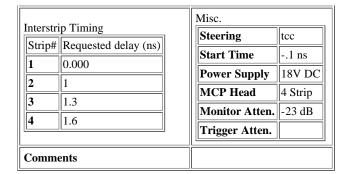


FIXED H13F - KBMICRO 3 / 26211

Description	Kirkpatrick Baez XR Microscope
Detector	Biomax
Filter used for image A	0
Filter used for image B	0
Filter used for image C	2 mils Al
Filter used for image D	4 mils Al
Filter used for image E	0

TIM 2 - QXI 1 / 26211

Description		LANL XR Framing Camera		
Optics				
Nosecone Type LANL		Internal Settings		
Magnification	6X-16	Phosphor	3000 V	
Pinhole Size	10um	MCP Bias #1	+200 V	
Blast Shield	.010" Be	MCP Bias #2	+200 V	
Frame Type	Straight	MCP Bias #3	+200 V	
Stand-off Distance		MCP Bias #4	+200 V	
Pinhole Substrate	.002"	PFM Type	200 ps	
Rear Filter	.002" Moly			



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FIXED H12C - XRPHC H12 / 26211 Operating Procedures

Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Fe (PI Supplied)

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FIXED H13C - XRPHC H13 / 26211 Operating Procedures

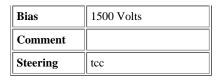
Description	XR Pinhole Camera
Total Fixed Filtration	0.006" Be
Pinhole to image	648 mm
Pinhole diameter	10 um
Pinhole to target	162.5 mm
Detector	CID
Magnification	4.0
Added Filtration	.001" Cu (PI Supplied)

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TIM 5 - DD-RIC 1 / 26211 Operating Procedures

Description	CVD Diamond Detector	
Dist. to TCC	40 cm	

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FIXED B25 - FABS 1 / 26211

Description	Full Aperture Backscatter System
Streak Camera	Yes
Calorimeters	SRS25, SBS25
12" Calorimeters (for calibration)	No